



Material Safety Data Sheet

Liquefied Petroleum Gas (LPG)

1. MATERIAL IDENTIFICATION AND SUPPLIER

Supplier name: Supagas 2009 limited
Address: 141 Roscommon Road, Manukau, Auckland, New Zealand
Telephone: 09 278 0145
Fax: 09 278 5672
Emergency: 111
Email: enquiries@supagas.co.nz
Web Site: <http://www.supagas.co.nz>
Use(s): Fuel
Synonym(s): LPG, COMPRESSED
MSDS Date: 3 June 2010

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO HS (MIN DEG OF HAZ) REGS 2001

HSNO CLASSIFICATION:

2.1.1A Flammable gases: High Hazard.

HAZARD STATEMENT:

H220 Extremely flammable gas. Ruptured cylinders may rocket.

PREVENTION STATEMENT:

Read label carefully before use
Keep away from heat/sparks/open flame/hot surfaces. No Smoking

RESPONSE STATEMENT:

Leaking gas fire: do not extinguish unless leak can be stopped safely.
Eliminate all ignition sources if safe to do so.

Store in a well ventilated location.

3. COMPOSITION

Ingredients	Einics	CAS no.	Content
Butanes	Not Available	68477-69-0	<100%
Propane	Not Available	74-98-6	<100%
Ethane	Not Available	74-84-0	<5%

4. FIRST AID MEASURES

Eye	Moderate irritation from vapour. Irritation and freezing if liquid enters eye.
Skin	Liquid can cause irritation and frost burn if in contact with skin.
Inhalation	LPG may cause irritation to respiratory tract. Moderate exposure may cause headaches or dizziness. Elevated exposure may cause unconsciousness and respiratory arrest. By diluting the oxygen concentration in air below the level necessary to support life; it can act as an asphyxiant. Effects of oxygen deficiency below 10% can cause death.
Ingestion	Ingestion is considered unlikely. However, should ingestion occur, contact a Poison Information Centre on 0800764 766 (0800 POISON) or +643 479 7248 (New Zealand) or a doctor.
Advice to Doctor	Treat symptomatically and inform doctor that victim has been exposed to an oxygen deficient atmosphere.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Highly flammable gas. Temperatures in a fire may cause cylinders to rupture and internal pressure relief devices to be activated. Call fire brigade. This product will aid the fire. This product will vigorously support combustion. Do not approach cylinders suspected to be hot. Remove cool cylinders from the path of the fire if safe to do so. Ensure working area is well ventilated before re-use. Notify the manufacturer that you will be returning a faulty cylinder.

Extinguishing

Stop flow of gas if safe to do so. If the gas source cannot be isolated, do not distinguish the flame as re-ignition and explosion could occur. Await arrival of emergency services or manufacturer's representative. Drench and cool cylinders with water spray from protected area at a safe distance. If it is absolutely necessary to extinguish the flame, use only a dry chemical powder for extinguishing. Do not move cylinders for at least 24 hours.

Flammability

Highly flammable - oxidising agent. Oil/grease can spontaneously ignite at low temperatures in oxygen enriched atmospheres. Many other materials, which do not burn in air, will vigorously burn in pure oxygen. Product will add fuel to the fire.

Hazchem Code 2WE

6. ACCIDENTAL RELEASE MEASURES

Spillage GAS CYLINDERS: If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate PPE and if safe to do so carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.

Personal protection: Do not smoke while handling this product. Persons moving cylinders should be provided with safety footwear, safety glasses and leather or PVC gloves. Full cover overalls are recommended. All personal protective equipment must be free from oil and grease.

7. STORAGE AND HANDLING

Handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

Storage

Do not store near sources of ignition or incompatible materials, there should be a minimum distance of 5 metres away from ignition sources. Cylinders should be stored below 45 C in a secure area, upright and restrained to prevent cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

Approved handlers required for more than 100kgs stored onsite.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards	TWA 1000 ppm v/v STEL – not applicable Asphyxiant
Biological Limit Values	No biological limit allocated.
Engineering Controls	Provide ventilation to area of use to prevent accumulation of LPG at flammable concentrations. Provide adequate local exhaust and dilution ventilation and supply sufficient replacement air to maintain oxygen concentration above 19%
Personal Protection Equipment	Wear safety boots, leather gloves and safety glasses and approved breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Colourless gas	Solubility (Water) : Not applicable
Odour: odorised	Specific gravity: 0.532
PH: Not Available	% Volatiles : Not Available
Vapour pressure: Not Available	Flammability: 1.8% to 9.5%
Vapour Density: Not Available	Flash point: -104 to 60°C
Boiling point: -42°C	Upper explosion limit: 10%
Melting point: not available	Lower explosion limit: 1%
Evaporation rate; not available	Autoignition Temperature: 430°C (butane) 486°C (propane)
Critical Temperature: Not applicable	Density: 1141.1 kg/m ³

10. STABILITY AND REACTIVITY

Material to Avoid

LPG is most commonly compatible with most component materials. However LPG is not compatible with Butyl, Rubber, Silicon, Chloroprene, Ethylene – propylene and hydrocarbon based lubricants.

Flammability

Extremely Flammable gas

11. TOXICOLOGICAL INFORMATION

Health Hazard

Summary

Asphyxiant, Symptoms of exposure are directly linked to the displacement of oxygen. As the amount of oxygen inhaled is reduced, the pulse rate will accelerate and the rate of breathing will increase as a result. The ability to maintain attention will diminish, muscular coordination is disturbed. As oxygen levels deplete below 10% judgement becomes faulty and severe injuries may occur as a result of indecisiveness. Exceeding 6% will leave permanent brain damage, loss of consciousness and then death.

Eye

Non irritating.

Inhalation

LPG may cause irritation to the respiratory tract. Moderate exposure may cause headaches and dizziness.

Skin

Non irritating.

Ingestion

Due to product form, ingestion is considered highly unlikely.

Toxicity Data

No LD50 data available for this product.

12. ECOLOGICAL INFORMATION

Environment

No Known ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Cylinders should be returned to the manufacturer or supplier for disposal of contents.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

Transport

Ensure cylinder is separated from driver and that outlet of relief device is not obstructed.



CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO NZS 5433

Shipping Name : Liquefied Petroleum Gas, Compressed

UN No. 1075	DG Class: 2.1	Subsidiary Risk(s): None allocated
Pkg Group: None Allocated	Hazchem Code: 2WE	
15. REGULATORY INFORMATION		

Group Name Liquefied Petroleum Gas

The "HASNO" act 1996 and hazardous substances (compressed gases) regulations 2004

Approved handlers are required if more than 100kg is stored on site.

16. OTHER INFORMATION

APPLICATION METHOD: Gas regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

ABBREVIATIONS:

mg/m³ - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

HSNO –Hazardous substances and new organisms act 1996.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

This MSDS summarises to our best knowledge, at the date of issue, the health and safety hazard information regarding this product and general guidance on how to safely handle the product in the workplace. All due care has been taken to include accurate and up-to-date information in this MSDS.

Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Supagas 2009 Ltd. As far as lawfully possible, no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS can be accepted. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is available on request. This MSDS has been prepared in accordance with NZCIC Code of Practice - Preparation of Safety Data Sheets. This MSDS is subject to change without notice, for the latest version of this MSDS visit www.supagas.co.nz

Reviewed 6 June 2010.